# WIND **ENGINEERING** SOCIETY



# Newsletter

Gwenaëlle Ambühl and Graham Knapp, Editors

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#### **❖** Chairman's Column



#### David Mackenzie, Flint and Neill Partnership

As the newly appointed Chairman of the Wind Engineering Society, I would first like to thank my predecessor, Professor Peter Bearman for his excellent stewardship of the Society for the past two years. It has been a pleasure working for him on the committee.

There have been a number of changes on the committee and I would particularly like to welcome Melissa Burton and John MacDonald to the committee as new members. Melissa works with Andrew Allsop (our Scruton Lecturer for 2007) at Arup in their Advanced Technology Group and brings in a strong background in application of wind engineering

technologies. Melissa also serves on the ASCE sub-committee "Designing for Wind-Induced Motion in Tall Buildings". John, a senior lecturer at Bristol University, holds an EPSRC Research Fellowship and has carried out some excellent research on the vibration of cables. His work provides an outstanding example of academic and industrial co-operation and has been of great benefit in understanding the mysteries of cable galloping.

Prior to my appointment as Chairman, I served as the Treasurer to the Society, a role now in the capable hands of John Owen from Nottingham University. In that capacity, it was apparent that the membership numbers of WES did not reflect the true interest in wind engineering in the UK and that we needed to attract more corporate members. The corporate interest ensures wider dissemination of our work and of the issues facing wind engineers today. I have written to several companies involved with wind engineering urging them to join our ranks or to renew lapsed membership; we have been fortunate in gaining representatives of BRE, Peter Brett Associates, Clark Smith Partnership, PZ & W Ltd, Faber Maunsell, ARQIVA, Alan Dick & Company Ltd and the University of Southampton's Wolfson Unit For Marine Technology & Industrial Aerodynamics as well as new individual members.

Wind engineering is a specialist field and yet all engineers who have a structure that is in the great outdoors will be interested to know what Mother Nature might throw at their creation! To consider wind effects as just a few lines in a code of practice belies the nature and understanding of the physical process behind wind loading. There are no specific 'industrial' sponsors of wind engineering as there are in the construction materials industry, where the choice of steel over timber or concrete can be a commercial choice. Thus it is important that we do not remain an inward looking Society of pure specialists as we will discourage others and limit the dissemination of our work. Instead, we need to be a wider group that considers the hugely significant economic impact of wind on our built environment.

To this effect I am delighted that the Scruton Lecture for 2007 is being given by Andrew Allsop of Arup. Andrew is one of the foremost wind engineers in the country and is going to present a wide ranging lecture that will highlight the impact of wind engineering on structures as well as the drive for greater understanding to ensure that we deliver safety and economy in our structures. The lecture will be of great interest to all and will also showcase a number of the very interesting structures that Andrew has been associated with during his illustrious career.

In a similar vein, we will also have Richard Matthews of Arup presenting an evening lecture on September 12th on Terminal 5 at Heathrow Airport. Although the airport may have been the source of much debate of late in the popular press, the achievements at Terminal 5 in dealing with wind related issues will be of considerable interest to all engineers.

Finally a word of thanks to Graham Knapp for his efforts in putting this newsletter together and to Lotte Grant for her support at the ICE.

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#### **\*** Conference Reports

#### International Conference on Wind Engineering - Cairns, Australia

Professor Chris Baker, University of Birmingham

I have been asked by the editor to write a report on the International Conference on Wind Engineering that was held in Cairns in July 2007. Such reports are usually rather tedious things and tend to say the same thing from conference to conference. What follows is thus somewhat different from a normal report and is simply a setting down of various events that made the week I was in Australia memorable, in roughly chronological order.



- The Immigration queue at Brisbane which would have taken around two hours to negotiate, if a colleague had not sweet talked a security guard to allow us through to catch our internal flight to Cairns. And the fact that our progress was speeded up to such an extent that our luggage didn't make it at the same time as we did.
- Some excellent keynote presentations from Peter Irwin (Wind engineering challenges of the new generation of super tall buildings); Michael Kasperski (Specification of design wind loads a critical review of code concepts) and Peter Vickery (Hurricane Hazard Modelling)
- The half-day ferry trip to the Great Barrier Reef, and in particular the glass bottomed boat ride.
- The IAWE awards ceremony where the first IAWE prizes were given out including the Davenport medal to our own Nick Cook, which was received on his behalf by Andrew Allsop. It was particularly poignant that these were presented by Alan Davenport himself.
- Presenting a paper that should have been presented by the colleague mentioned above, who was at the time confined to bed by a flu bug. I thus had to talk about something I knew very little about which is of course nothing new
- Presenting the case for Birmingham to host the next ICWE, and being thrashed by the only other competitors, Amsterdam, in the voting at the IAWE General Assembly. Clearly Amsterdam has something Birmingham doesn't. I can't think what.

I have to say I can't remember a great deal about the technical sessions, although I did go to quite a few. The session on downburst simulation was however interesting, with investigators taking a variety of approaches to simulating such flows.

There were regrets of course – the major one being that I didn't get a chance to go on the Kuranda railway up to the rain forest and the cable railway over the forest canopy. I must plan things better next time.

Chris Baker

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#### **Announcements**

# RWDI's Principals are recognised for their contributions to Wind Engineering. RWDI Press Release

RWDI, the Canadian and UK based leading Wind Engineering and Environmental Consulting company, are very pleased to announce that two of their leading Principals have recently been recognized for their major contributions to Wind Engineering worldwide by leading Engineering Associations.

Peter Irwin, who is President of RWDI and works out of their Head Office in Guelph, Canada, has been awarded the Jack E. Cermak Medal by the American Society of Civil Engineers. This prestigious medal is awarded to an individual in recognition of his or her lifetime achievement in the wind-engineering field, and for their outstanding contributions to research and/or practice in wind engineering.

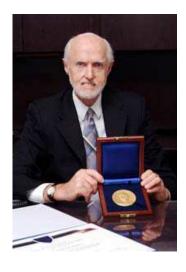
During the year following receipt of the Medal, Peter will be invited to deliver the Cermak Lecture on a topic within the designated subject area of the award, to be presented at one of the ASCE national meetings, conferences, congresses or conventions.

Peter's award citation will read: "For his contributions to wind engineering through consulting, research and development on wind load effects on structures, including contributions to ASCE 7 and supervision of wind engineering studies of many landmark structures." One of the requirements of this award is the enthusiastic endorsement from key engineers with whom Peter has worked. Peter got this endorsement from all the major and very famous structural engineers who were asked to comment and who have had a long working relationship with Peter, those being:

Charles Thornton (Thornton Tomasetti)	Raymond McCabe (HNTB)
Lawrence Griffis (Walter P. Moore)	Peter Taylor (Buckland & Taylor)
Jacob Grossman (Rosenwasser/Grossman)	Ahmad Rahimian (WSP Cantor Seinuk)
Ron Klemencic (Magnusson Klemencic Associates)	William Baker (Skidmore, Owings & Merrill

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Peter Irwin Nick Cook

In addition ,Nick Cook ,who is based at the offices of RWDI Anemos in Dunstable in the UK, was recently awarded the Alan G Davenport Medal by the International Association for Wind Engineering. Nick is one of a select group of people so honoured at the recent world conference in Australia. The citation reads that it is for "outstanding achievements in the field of wind engineering". Nick has been at the forefront of developing the tools routinely used today, particularly in the analysis of wind climate data and in appropriate methods of extreme value analysis.

These awards are a great endorsement both of the individuals and the strength of RWDI worldwide.

For further information, please contact Malcolm Farrar, RWDI Anemos Ltd

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e-mail: mfarrar@rwdi-anemos.com

#### Research Special Issue

The next issue of the Wind Engineering Society newsletter will review Wind Engineering research across the UK. To that end, articles are invited from throughout the academic and industrial research community.

All submissions to graham.knapp@burohappold.com

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# RWDI Anemos

Reputation Resources Results

### **Job Vacancies**

RWDI Anemos Limited are part of the largest international wind engineering consultancy who have worked on many of the world's landmark developments, both their environmental impact and structural design. We have offices in Dunstable with our own purpose-designed wind tunnel test facility.

We seek self-motivated individuals to join our expanding team in the following areas:

- Environmental/Wind Microclimate Consultants
- Structural Wind Loading Consultants
- Project Managers
- Business Development Manager

Ideally, you will be degree educated in a numerate subject with some relevant experience and an understanding of wind issues for building design. The ability to think on your feet, to work as part of a team and to communicate well is important.

The positions are full-time with a competitive salary package, including a bonus scheme and contributory pension. The work environment is friendly but highly focussed. As we grow, there will be opportunities for advancement and development in other work areas.

Please apply with a full CV to June Abraham at RWDI Anemos Ltd, Unit 4, Lawrence Industrial Estate, Lawrence Way, Dunstable, Beds. LU6 1BD.

Tel: 01582 470250 e-mail: jabraham@rwdi-anemos.com Web: www.rwdi-anemos.com

#### **\*** Forthcoming Conferences

#### WES Conference, July 2008

This will be held at the University of Surrey, Guildford, from Monday 14th July to Wednesday 16th July, with registration open on the Sunday. Accommodation will be available on campus. The local organiser is Prof. Alan Robins (a.robins@surrey.ac.uk).

The University of Surrey is conveniently situated for both Gatwick and Heathrow airports and Guilford can be reached in about 40 minutes by train from London Waterloo. The University is close to the railway station. For further details see <a href="https://www.surrey.ac.uk">www.surrey.ac.uk</a> and select "Visitors".

In additional to the traditional agenda, a session is planned on the consequences of a changing climate. Full details will be provided in the next issue of the Newsletter and will be sent to all members during September. In the mean time, please contact Alan Robins for information.

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#### **\*** Future WES Events

at the Institution of Civil Engineers, One Great George Street London SW1P 3AA, unless otherwise stated

Wednesday 3rd October 2007 at 1.30pm

#### WIND ENGINEERING RESEARCH DAY

Chair:
Dr Mark Sterling
The University of Birmingham

Non-Members of the Society are welcome to attend (for which there is no charge)



For further information please contact Lotte Grant

Tel: 020 7665 2238. Fax: 020 7799 1325 or email: Lotte.Grant@ice.org.uk

Details and Abstracts of this meeting at <a href="http://ukwes.bham.ac.uk">http://ukwes.bham.ac.uk</a> and on separate flyer

#### --- CHANGE OF DATE---

Wednesday 21 November 2007 6 - 8pm

# Scruton Lecture: 21st Century Wind Engineering - A way to better science!

Andrew Allsop, Arup

In the Telford Theatre, ICE, address as above



The Wind Engineering Society's Scruton Lecture will be given this year by Andrew Allsop, Fellow and ex-chairman of the Wind Engineering Society, and Director and full-time wind engineer with Arup for the past 25 years. Initially a structural engineer, he studied wind engineering under Prof. Alan Davenport at the University of Western Ontario in 1981 and has since worked on most of the major wind loaded structures engineered by Arup. Current responsibilities include running a small team of full-time wind engineers managing projects around the world, covering environmental winds, structural loading and dynamic response, cladding design and use of wind to achieve better sustainability.

The beginnings of wind engineering as a science really only date back about 50 years, and there are still some who doubt it is a science today. The widely different modern day predictions of wind loading on the World Trade Centre from some of the world's most experienced wind tunnel laboratories is there for all to see on the NIST web-site. The talk will give an overview of the important developments in wind engineering over the past 25 years and the many things that remain to be explored including the likely benefits from availability of faster computing. It will also touch on a few of the myths and legends of wind engineering and point a way towards achieving better science.